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SUPERFUND RECORDS

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Jeff. Carnahan, Governor • David A. Shott, Director
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

April 30, 1997

Mr. Steven Kinser
Remedial Project Manager
U.S. EPA, Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Site:	<u>Rose, Martha</u>
ID #	<u>MO980633069</u>
Break:	<u>11.6</u>
Other:	<u>0708</u>
	<u>4-30-97</u>

RECEIVED
MAY 05 1997
SUPERFUND DIVISION

Dear Mr. Kinser:

This letter is in response to readdressing the issue of terminating groundwater monitoring at the Martha Rose Chemical site in Holden, Missouri. Mr. Steve Sturgess and I met with representatives of the Missouri Department of Health (DOH) and the Missouri Department of Natural Resources, Division of Geology and Land Survey (DGLS) to discuss the issue again. At the close of the meeting it was requested that written comments be forwarded to the Hazardous Waste Program. Rather than attempt to paraphrase their comments I am enclosing copies for your review.

The result of the meeting was to reinforce the state's demand that groundwater monitoring not be terminated. This topic has been addressed previously and all agreed there is no need for future discussion. The Missouri Clean Water Law states "... that no waste be discharged into any waters of the state without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters and meet the requirements of the Federal Water Pollution Control Act as amended; ..." The sampling conducted up to this point has not proven that the actions taken at the Martha Rose Chemical site meet this law.

I will reiterate that I would entertain a proposal from the Steering Committee to modify the groundwater monitoring program to address the area of concern (i.e., the lateral movement of contaminants in the shallow aquifer).

If you have any questions, please feel free to contact me at (573) 751-3176.

Sincerely,

HAZARDOUS WASTE PROGRAM

Donald F. Van Dyke
Environmental Specialist

DVD:rw

Enclosures

c: Mr. Steve Kovac, EPA



MISSOURI DEPARTMENT OF
HEALTH

Mel Carnahan
Governor

Coleen Kivlahan, M.D., M.S.P.H.
Director

P.O. Box 570, Jefferson City, MO 65102-0570 • 573/751-6400 • FAX 573/751-6010

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1997

September 4, 1996

MISSOURI DEPARTMENT OF HEALTH
JACKSON COUNTY

FILE COPY

FILE COPY

Gary T. Behrms
Chief
Superfund Section
Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102-0176

Dear Mr. Behrms:

Missouri Department of Health (DOH) received documents from your department on the Martha Rose Chemical Site. We were asked to provide input on the Steering Committee's request to cease monitoring. The submitted documents were reviewed by Cherri Baysinger-Daniel, Geanine Howard, Pam Holley and Randy Maley. Based on their review, our Department recommends that groundwater monitoring be continued due to the following:

- The two monitoring wells that initially detected PCBs in the shallow aquifer or soils above the bedrock (MW-204 and MW-207) have not been analyzed since the site underwent remediation. Well 204 was not analyzed in the three sampling rounds to date. Well 207 was damaged during clean-up. A replacement well (MW-207R) was put in nearby, but it is screened at a different depth. The lower concentrations in well 207R can not be used to infer that the concentrations in well 207 are decreasing.
- Testing for PCB concentrations in the remaining wells has not been a consistent process. During testing in some of the wells, for example, both PCBs have been excluded from analysis, Aroclor-1242 was tested for but not Aroclor 1254/60, or filtered samples of both Aroclors were analyzed but not unfiltered samples. To establish the presence of a plume or to determine if concentrations in any contaminated well are decreasing, there should be consistency in sampling and testing. Results from well 201, 204, 207R, 208, 214, and 215 can not be used to determine processes going on below the site with any certainty.
- Well 210, in the northeast corner of the site, has increasing concentrations of PCBs, VOCs and SVOCs. This well is adjacent to the main building which sits on a drainage divide. The other shallow wells are upgradient of drainage or downgradient

of southwest drainage. This is the only well that monitors water flowing to the northeast from the building. Not only is it imperative that monitoring not be stopped in this crucial well, but if concentrations do not begin decreasing this may be an area that needs to be investigated further in the near future.


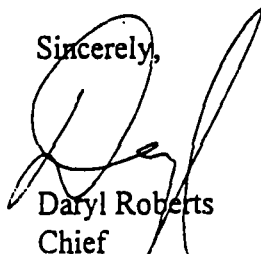
- Well 211, located to the southwest downgradient of the main building area, is also showing small increases. This well should continue to be monitored to determine if any transport off-site is occurring.
- Sampling in the remainder of the shallow wells has not detected any major changes with the majority of the wells remaining uncontaminated. A number of these wells are located in areas around the perimeter of the site. It is too early to rely on these wells as indicators of non-movement at the site.

The possibility of discontinuing monitoring in select wells was briefly discussed. DOH would be in agreement with discontinuing monitoring in the deeper wells. The only deep well (MW-104) that appears to be screened in the lower layer of concern - the sandstone of the Labette Formation - is upgradient of the site. In the absence of any reports presented to DOH to suggest otherwise, the deeper wells are not overly beneficial to determining transport from this site. DOH would also be open to discontinuing select shallow wells in the center of the site with the exclusion of well 207R.

Termination of groundwater monitoring could allow contamination of drinking water sources or surface water bodies by PCBs to occur without detection. Ingestion of and dermal contact with PCB-contaminated water can have adverse health effects, including skin and lung irritations, liver and kidney damage, and possibly cancer, on exposed populations. Monitoring of the groundwater to detect any PCB migration off-site will ensure continued protection of public health.

We appreciate the opportunity to participate on this matter. If you have any questions or comments, please feel free to contact any of the reviewers at (573) 751-6111.

Sincerely,



Daryl Roberts
Chief
Bureau of Environmental Epidemiology
Missouri Department of Health

DWR:PAH:egd



Missouri Department of
HEALTH

MEMO

TO: The Record

THROUGH: Gale Carlson *for*

FROM: Randall Maley *RM*

DATE: February 21, 1992

SUBJECT: Martha Rose Chemical Site

On Monday, February 10, 1992, I received a phone call from Jim Kavanaugh. He stated that EPA was planning to remove the deed restrictions from the Record of Decision on the Martha Rose Chemical Site. He said that EPA would be calling "in the next couple of days" to discuss their plans. EPA called later that day and said their attorneys felt that the deed restrictions were not legally justifiable and would cause EPA problems in court.

I reviewed our PCB risk assessment including our cleanup levels. I calculated that our any-use level of .65 ppm was justifiable and then stated that we stood by our value. In discussions with EPA personnel in Washington, they agreed that our any-use level was basically consistent with theirs. The difference is that EPA feels that placing a 10" cover over the PCB contaminated soil reduces the risk by an order of magnitude. Our feeling is that this risk reduction depends on the cover remaining in place - which we feel requires deed restrictions.

Finally, EPA stated that they had decided to leave the deed restrictions in place; that it was more trouble to justify the risk management decision than to justify the need for a cover.

RM:je



MISSOURI DEPARTMENT OF
HEALTH

John Ashcroft
Governor

John R. Bagby, Ph.D.
Director

P.O. Box 570, Jefferson City, MO 65102 • 314-751-6400 • FAX 314-751-6010

February 14, 1992

Nick Di Pasquale, Director
Waste Management Program
Department of Natural Resources
Jefferson Building
Jefferson City, Missouri 65101

Dear Mr. Di Pasquale:

This letter is in regard to recent discussions on the Martha Rose Chemical Site in Holden, Missouri. We have been in consultation with the Environmental Protection Agency, the Agency for Toxic Substances and Disease Registry, and with Bob Geller, Jim Belcher and Jim Kavanaugh, of your department, concerning the Record of Decision (ROD) on this site.

Earlier this week, we reviewed our Any-use Soil Level (ASL) for PCBs. This review confirmed our established soil level of .65 ppm for PCBs in an unrestricted situation. Our figure is in basic agreement with the EPA's PCB Spill Policy, which states (paragraph 2 under Section 3.1.1) "(a) concentration of 1 ppm PCBs equates to approximately a 10^{-5} excess cancer risk assuming no soil cover or management controls."

We also agree that covering PCB-contaminated soil will decrease the health risk involved. Unfortunately, because the EPA does not want to place deed restrictions on the property, and want to basically "walk away" from the site, we can not concur with their decision. Without any deed restrictions, EPA has no control over future land use. Therefore, EPA can not ensure that someone will not remove the protective cover at a later date, or grade the cover onto a small portion of the site. Such recontouring might well occur if the site were to be developed for residential use.

In a PCB spill in an established area, only a small area would be expected to be affected, and concentration would be expected to decrease at depth. At this site, however, an area of several acres is contaminated, and in some areas the contamination is as much as 20 feet below the surface.

From EPA's point of view, this may be viewed as a risk management decision. The Missouri Department of Health uses a 1 in 100,000 excess lifetime cancer risk as our "acceptable level". EPA, on the other hand, uses a cancer risk range of 10^{-4} to 10^{-6} as

appropriate. Following the proposed remediation, the cancer risk associated with a residential exposure scenario at this site is within the 10^{-4} cancer risk range.

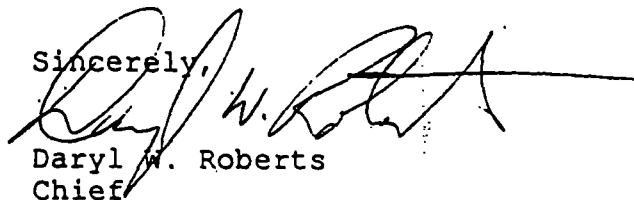
We have been in contact with the Agency for Toxic Substances and Disease Registry (ATSDR) regarding this site. While ATSDR has agreed that the cleanup level of 10 ppm PCBs in residential areas is protective of human health (without deed restrictions) ATSDR also states that "(s)ampling for other contaminants that may be present in the soil is recommended to ensure that PCBs are the only contaminant of concern. Other contaminants associated with PCB-handling facilities include dibenzofurans." This caveat confirms our concern on this issue, which we stated in our response to the draft Endangerment Assessment.

ATSDR also states, "(i)f the future use of the site is unlimited, soil sampling should confirm that the concentrations of PCBs does not increase with depth - especially within the first several feet below the surface." They also stated that "(d)iscrete samples should be taken in areas of the surface soil currently below the 10 ppm PCB cleanup level (and, therefore, will not be covered) to ensure that contaminants are evenly distributed (no significant 'hot spots')." ."

In conclusion, the Missouri Department of Health will not concur with the newest proposed ROD. A 10^{-4} excess cancer risk is within EPA's range of 10^{-4} to 10^{-6} ; however, we do not believe 10^{-4} to be adequately protective of human health. The Missouri Department of Health has consistently utilized 10^{-5} as the acceptable upper-risk limit. With this in mind, we still believe that deed restrictions, or other management controls are needed at the site.

If you have any questions, or need clarification, please contact me or Gale Carlson and Randall Maley, of my staff, at (314)751-6102.

Sincerely,



Daryl W. Roberts
Chief

Bureau of Environmental Epidemiology

DWR:GC:RM:je
cc: Robert Morby



MISSOURI DEPARTMENT OF
HEALTH

John Ashcroft
Governor

John R. Bagby, Ph.D.
Director

P.O. Box 570, Jefferson City, MO 65102 • 314-751-6400 • FAX 314-751-6010

November 14, 1991

Ed Knight
Chief, Superfund Section
Waste Management Program
Department of Natural Resources
Jefferson State Office Building

Dear Mr. Knight:

This letter is in response to Mr. Steven Kinser's letter of October 22, 1991, to Mr. James Kavanaugh. Mr. Kinser's letter was in regard to a telephone conversation involving Mr. Kinser, Mr. Kavanaugh and Mr. Randall Maley of my staff.

The Missouri Department of Health is disturbed by both the content and the tone of Mr. Kinser's letter. The letter seems to imply that our concern over the lack of dibenzofuran analysis at the Martha Rose site was merely a "passing fancy". Nothing could be further from the truth. Our department stated over two years ago that the Endangerment Assessment for the site was inadequate because dibenzofurans were not addressed (see attached).

Contrary to Mr. Kinser's letter, we do have supporting documentation for our assertion, and could have provided him this information, if he had asked. We have, in fact, quoted and referenced two publications in previous correspondence (see attached).

Contrary to Mr. Kinser's information, polychlorinated biphenyls (PCBs) do not have to be incinerated to produce dibenzofurans. Commercial PCB mixtures are commonly contaminated with dibenzofurans. In addition, heat, such as arcing inside a transformer or opening the capacitor with a cutting torch, is sufficient to increase the concentration of dibenzofurans.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

OCT 22 1991

Mr. James Kavanaugh
Missouri Department of Natural Resources
P. O. Box 176
Jefferson City, Missouri 65102

Dear Mr. Kavanaugh:

This letter is in response to the inquiry made by the Missouri Department of Health concerning the Record of Decision for the Martha C. Rose Chemical Site. It was my understanding that all of the concerns expressed by the Department of Health had been addressed during our conference call with Randy Maley held on June 17, 1991. I have no further information on the topic but will repeat what I recall was discussed during this conference call.

Mr. Maley stated that he was concerned that no analysis for dioxins or Polychlorinated dibenzofurnas had been made at the Rose Site. I explained that EPA had no indication there had been any burning of PCBs at the Site; therefore, EPA did not believe there was any basis for the assumption that dioxins or furans would be present at the Site. Then, Mr. Maley stated that he had read an article, which said that Polychlorinated dibenzofurans contaminated all PCBs even without the PCBs being exposed to open burning. He did not have any supporting information and was unable to give specific detail concerning the article, its source or the credentials of the authors. I was unable to gain sufficient detail, concerning the contents of the article from Mr. Maley other than, he had read an article and thought we should have tested for furans based on his understanding of the contents.

Mr. Maley stated that he recalled from the article that PCBs at a level between 100 and 1,000 ppm could be contaminated with as high as one to two ppb furans. I explained, even if this were the case, the highest concentration of PCBs to be left at the Site will be less than 10 ppm. Assuming a straight line correlation the furan concentration at that level would be no more than 0.1 to 0.2 ppb in the material remaining at the Site. I further stated that, based on my recollection, dioxin equivalents for isomers of dioxin and furans, compared to 2,3,7,8 TCDD, were no greater than 0.1 for furans and some as little as 0.001. Taking the most conservative figure of 0.1 and applying

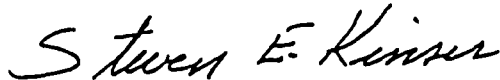
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
JEFFERSON CITY, MISSOURI 65102

it to the Rose Site, the greatest risk one could expect to find as a result of the furans, which may contaminate the remaining PCBs at the Site, would be the equivalent of 0.01 ppb 2,3,7,8 TCDD or 100 times less than the action level for nonrestricted residential use. With this explanation provided, Mr. Maley agreed that he saw no potential of significant risk to human health or the environment, resulting from the alleged potential for furan-contamination of the PCBs that will remain at the Site.

There has been no further information received by the EPA to contradict the information conveyed in the June 17, 1991 conference call. Therefore we do not plan to expend the additional effort, time and cost required to investigate for furans at this site.

I hope this information is sufficient to address the Department of Health's concerns. Please feel free to contact me (913 551-7728) concerning this matter if additional information is required.

Sincerely yours,

A handwritten signature in cursive script that reads "Steven E. Kinser".

Steven Kinser
Remedial Project Manager
Removal Enforcement Section
Superfund Branch
Waste Management Division



MISSOURI DEPARTMENT OF
HEALTH

John Ashcroft
Governor

John R. Bagby, Ph.D.
Director

P.O. Box 570, Jefferson City, MO 65102 • 314-751-6400 • FAX 314-751-6010

September 25, 1991

Mr. Ed Knight
Chief, Superfund Section
Waste Management Program
Missouri Department of Natural Resources
Jefferson State Office Building
Jefferson City, Missouri 65102

Dear Mr. Knight:

The Missouri Department of Health can not concur with the proposed remedy for the Martha Rose Chemical Company. The Environmental Protection Agency (EPA) has never formally addressed our concerns regarding the potential presence of dibenzofurans at the site. Polychlorinated dibenzofurans are several orders of magnitude more toxic than PCBs. We could assume that removal of all soils contaminated with PCBs in excess of 10 ppm, combined with capping of less contaminated soils, would result in removal or capping of all soils potentially contaminated with dibenzofurans above a level of health concern. This would, however, merely be an assumption. Without some analytical data we are unwilling to make that assumption.

We have repeatedly stated that the Endangerment Assessment for this site is inadequate. We regret that the EPA has not seen fit to address our concerns. If you have any questions, please contact Randall Maley at (314) 751-6102.

Sincerely,

Daryl W. Roberts
Chief

Bureau of Environmental Epidemiology

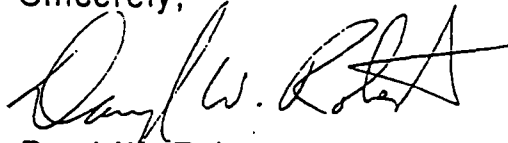
DWR:RM:je

As previously stated, our position more than two years ago was that we considered the risk analysis on this site to be inadequate. The Environmental Protection Agency (EPA) has repeatedly ignored our position. We can only conclude that EPA Region VII does not truly understand the potential health risk or is insensitive to the health of our citizens.

We understand that the EPA does not need state concurrence on the Record of Decision. Our primary reason for drafting this letter is to try to prevent the same type of oversight on future PCB cleanups.

If you have any questions, please contact Mr. Randall Maley at (314) 751-6102.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl W. Roberts", with a large, stylized flourish at the end.

Daryl W. Roberts
Chief

Bureau of Environmental Epidemiology

File: Martha C. Rose Chemical Plant
Johnson County

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director



STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation,
and Historic Preservation

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JUN 12 1991

Bureau of
Environmental Epidemiology

June 11, 1991

Mr. Steven E. Kinser
U.S. Environmental Protection
Agency, Region VII
726 Minnesota Avenue
Kansas City, KS 66101

RE: Comments on the Draft Proposed Plan for the Martha C. Rose Site,
Holden, Missouri

Dear Mr. Kinser:

Review of the "final" draft Proposed Plan (dated May 14, 1991) has been completed by the Missouri Department of Natural Resources (MDNR). Staff from the Division of Geology and Land Survey, the Division of Environmental Quality's Waste Management and Laboratory Services Programs, and the Missouri Department of Health (MDOH) conducted the review. The State has identified some areas of major concern and offer the following comments for your consideration:

1. Although it is well established that all commercial PCB mixtures are potentially contaminated with dibenzofurans, the sampling at this site did not include analysis for dioxins or dibenzofurans. Therefore, the Endangerment Assessment performed at this site did not include them as indicator chemicals. Because of this oversight, the assumptions made in the RI/FS may not be valid and the health risks associated with this site may be several orders of magnitude higher than those given in the RI/FS. We feel that the U. S. Environmental Protection Agency (EPA) should take the possibility of extensive dibenzofuran contamination into consideration when deciding what levels of waste to incinerate/remove. It is likely that the soils/concrete with the highest levels of PCB contamination also contain the highest levels of dibenzofurans. We feel that all soils above 100 parts per million (ppm) and all concrete contaminated above 500 ppm should be incinerated.



2. The proposed interval for groundwater monitoring calls for yearly sampling. We feel this is too long of an interval, especially in the first few years. We recommend quarterly sampling for the first two or three years. This would further prove the assertion that the original two or three sampling rounds were influenced by surface dust. These first few years of quarterly sampling would also detect any migration of contaminants that may have occurred since the RI sampling in 1989 and 1990. Two or three years of quarterly sampling data will pick up any seasonal changes that may occur and show any trends that may influence migration potential. If such migration exists, the contingency plan could be implemented early in the remedial action phase, if need be.
3. The plan calls for cleaning the stream sediment to .18 ppm PCBs. What level will VOCs be cleaned up to? Since different stretches of the streams may be contaminated with different compounds (PCBs versus VOCs) the verification samples should be analyzed for both.
4. On pages 17 and 18, the plan calls for "all soil contaminated at levels significantly above 100 ppm will be incinerated." The plan does not define "significantly above?" We feel all soils contaminated above 100 ppm should be incinerated.
5. On page 17, the plan states, "It is not anticipated that any sediment will exceed 100 ppm;" however, no provisions are included as to what step(s) will be taken should the 100 ppm level be exceeded.
6. The plan calls for a 10-inch cap for the site. We are particularly concerned with this because the proposed plan only addresses "Deed restrictions prohibiting conventional residential structures." Any residential structure, whether conventional or otherwise, is likely to result in soil excavation for water lines and grading of soil for roads, curbs, and drainage ditches, etc. We would be more comfortable with a thicker cap on this site and/or deed restrictions which prevent all residential structures.
7. On page 6, the plan states, "There are existing wells in the area, but are not currently in use due to the low yield of the groundwater. It has been reported that some of these wells are being plugged by their owners." These wells represent potential sources of human exposure as long as they remain open, even if they are not currently being used. It might be prudent to initiate provisions to assist existing private well-owners in the area of the Martha Rose Chemical site in plugging those wells. Proper closure of these existing wells would remove the temptation of future use and in turn reduce the potential for exposure from the groundwater pathway.
8. On page 18, under paragraph C, in the last sentence, there is a typo, "manor" should be manner. Also on page 21, in the last paragraph, third sentence, the word "waver" should be spelled waiver.

Mr. Steve Kinser
June 11, 1991
Page 3

Thank you for the opportunity to comment on this draft Proposed Plan.
Should you have questions regarding our review or comments, please contact
me at (314) 751-3176.

Sincerely,

WASTE MANAGEMENT PROGRAM



James L. Kavanaugh
Environmental Specialist

JLK:sh

c: Mr. Brian Allen, Laboratory Services Program
Mr. Jim Fels, Division of Geology and Land Survey
Mr. Randy Maley, Missouri Department of Health ✓



MISSOURI DEPARTMENT OF
HEALTH

John Ashcroft
Governor

John R. Bagby, Ph.D.
Director

P.O. Box 570, Jefferson City, MO 65102 • 314-751-6400 • FAX 314-751-6010
June 5, 1991

Edwin Knight
Chief, Superfund Section
Waste Management Program
Department of Natural Resources
Jefferson State Office Building
Jefferson City, MO 65102

RE: Martha Rose Chemical Site, Holden

Dear Mr. Knight:

The Missouri Department of Health cannot concur with the Environmental Protection Agency's (EPA's) proposed alternative for the Martha Rose Chemical site. The facility handled 23 million pounds of PCBs. Commercial PCB mixtures are well known to contain extremely hazardous contaminants. To quote other state health departments, "any [commercial] PCB mixture should be suspected of [dibenzofuran] contamination" (Washington Dept. of Social and Health Services) and "all commercial mixtures of chlorinated biphenyls are potentially contaminated with polychlorinated dibenzofurans" (California Dept. of Health Services). Even though it is well established that PCBs are commonly contaminated, the sampling at this site did not include dioxins or dibenzofurans. Therefore, the Endangerment Assessment performed at this site did not include them as indicator chemicals. Because of this oversight, the assumptions made in the RI/FS may not be valid and the health risks associated with this site may be several orders of magnitude higher than those given in the RI/FS.

Since October of 1989, we have stated on several occasions that sampling for dibenzofurans should be performed at this site. We do not wish to delay the cleanup of this site; however, we do feel that the EPA should take the possibility of extensive dibenzofuran contamination into consideration when deciding what levels of waste to incinerate/remove. It is likely that the soils/concrete with the highest levels of PCB contamination also contain the highest levels of dibenzofurans. We feel that all soils above 100 parts per million (ppm) and all concrete contaminated above 500 ppm should be incinerated.

We have several other reservations about the proposed plan for this site. On pages 17 and 18, the plan calls for "all soil contaminated at levels significantly above 100 ppm will be incinerated." Nowhere does the plan give a definition for "significantly above". We feel all soil contaminated above 100 ppm should be incinerated. Also on page 17 is the sentence, "It is not anticipated that any sediment will exceed 100 ppm." No

provisions are included as to what step(s) will be taken should the 100 ppm value be exceeded.

We are also concerned that only a 10-inch cap is proposed for this site. We are particularly concerned because of the phrase "Deed restrictions prohibiting conventional residential structures". Any residential structure, whether conventional or otherwise, is likely to result in soil excavation for water lines, grading of soil for roads, curbs and drainage ditches, etc. We would be more comfortable with a thicker cap on this site and/or deed restrictions which prevent all residential structures.

Finally, we would like to see provisions made to assist private well-owners in the area in plugging their existing wells. Since private wells exist, we fail to see how groundwater can be considered an incomplete pathway. Although the plan states that these wells are not currently being used, they represent potential sources of human exposure. It is our experience that people will use private wells if they are available, even though they may be low-yield. If these wells are left open, owners may be tempted to use them for watering livestock, gardening, etc. The Missouri Department of Health is aware of several areas in the state where numerous private wells are being used in what are not considered "usable aquifers". Proper closure of existing wells in the area of the Martha Rose Chemical site would reduce the potential for exposure from the groundwater pathway.

Thank you for the opportunity to review the proposed plan. We have expedited our response because of the short timeframe allowed by the EPA. If you have any questions regarding our review, please contact Randall Maley at (314) 751-6102.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kathy Allen for DWR".

Daryl W. Roberts
Chief

Bureau of Environmental Epidemiology

DWR:RM:je



MISSOURI DEPARTMENT OF
HEALTH

John Ashcroft
Governor

John R. Bagby, Ph.D.
Director

P.O. Box 570, Jefferson City, MO 65102 • 314-751-6400 • FAX 314-751-6010

October 15, 1990

Jim Belcher
Superfund Section
Waste Management Program
Missouri Department of Natural Resources

Dear Mr. Belcher:

Thank you for the opportunity to review the Feasibility Study for the Martha Rose Chemical Site in Holden. We feel that removal of the buildings, sediments and concrete, followed by an adequate cover that is adequately maintained, will be sufficient to prevent significant human exposure from PCBs in soil. We would like to see long-term groundwater monitoring at this site, and are still puzzled as to why dioxin and dibenzofurans were not included as indicator chemicals at this site.

If you have any questions, please contact Randall Maley at (314) 751-6102.

Sincerely,

Daryl W. Roberts
Chief
Bureau of Environmental Epidemiology

DWR:RDM:cw

69

JOHN ASHCROFT

Governor

G. TRACY MEHAN III

Director



STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

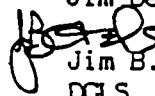
MEMORANDUM

31

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation,
and Historic Preservation

DATE: February 28, 1990

TO: Jim Bell, Superfund Section, WMP-DEQ

FROM:  Jim B. Fels, Engineering/Environmental Geology Section,
DGLS

SUBJECT: Review of the Draft Feasibility Study for the Martha Rose
Chemical Site, Johnson County

After reviewing the Draft Feasibility Study for remediation at the Martha Rose Chemical Site, I have only a few comments. My main concern is with regard to groundwater. Granted there isn't anticipation of deep groundwater contamination by PCB's at this site, but I feel the shallow groundwater should be adequately addressed as far as remedial matters. Both PCB's and VOC's were found in shallow groundwater during sampling events and is suspected to be discharging into the unnamed tributary of East Pin Oak Creek at a slow rate. If the shallow groundwater is not addressed and the levels of contaminants are high enough, this could be a long term source of contamination to surface waters.

The PCB levels found in the shallow groundwater during sampling events number 1 and 2 were more or less disregarded by Burns & McDonald because of what they considered to be cross contamination of PCB contaminated dust. But later in the report it is stated that dust was sampled and was found to be free of PCB's. It appears that sampling events Number 1 and 2 were accurate and low levels of PCB are present in the shallow groundwater.

My last concern is the depth to shallow groundwater. In some of the wells the water comes within 4 feet of the surface and seasonal fluctuations may bring the water even closer to the surface. If the contaminated soil is not removed, migrating shallow groundwater could come into contact with this soil and pose future problems. This would need to be addressed if Alternative 5 is chosen. If Alternative 7 is chosen, the shallow groundwater could cause minor excavation problems if the removal was to be that deep.

MEMORANDUM



Missouri Department of

HEALTH

TO: Gale M. Carlson
Environmental Specialist
Bureau of Environmental Epidemiology

FROM: Randall Maley *RM*
Environmental Specialist
Bureau of Environmental Epidemiology

SUBJECT: Rose Chemical File

DATE: October 19, 1988

On October 18, 1988 I received a phone call from Ms. Jane Mason from the Kansas City office of the FBI. They are conducting a criminal investigation which involves the Rose Chemical Plant and would like to look and/or make a copy of our files. Ms. Mason will be down sometime the week of October 31-November 4 to review the file. She will contact us sometime next week to set up a time. I requested she send us a written request or bring one with her.

RM:vh

Save

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LELAND F. DEMPSEY
ROBERT D. KINGSLAND

816-421-6868

September 16, 1987

Wayne Schramm
Department of Health
P.O. Box 570
Jefferson City, Missouri 65102

Re: Stillwell

Dear Mr. Schramm:

I am an attorney who represents an infant, Joshia Stillwell, and his parents Leonard and Tonia Stillwell of Independence, Missouri. Mr. Stillwell was employed at Rose Chemical Company in Holden, Missouri. Their child was born with certain serious birth defects in 1986. The Stillwells have retained me to ascertain among other things whether Joshia's birth defects were caused by his exposure prenatally or by the parents' exposure to PCB's.

In this regard, I interviewed a number of ex-employees of Rose Chemical Company and their wives, the majority of which had extensive exposure to PCB oils or gasses emitted during the cutting of transformers with blow torches. Of a total of twenty-three pregnancies that I have been able to acquire information about, eleven resulted in normal births (52.2%), seven in miscarriages (30.4%), two stillborn (11.5%) and two with serious birth defects one of which died at one and one half months (11.5%). Not all of the births or miscarriages have been confirmed.

I am currently acquiring from the Environmental Protection Agency certain employment and payroll records of Rose Chemical Company which hopefully will identify other ex-employees of Rose Chemical Company. I hope to complete at that time interviews with more of those employees so as to determine whether the instances of miscarriages/stillbirths/birth defects are greater among this group than either the historical average for the Holden/Johnson County area or among the non-employees of Rose Chemical in the Holden/Johnson County area.

In this regard, I had a conversation with Mr. Darrell Roberts who told me a little bit about the reproductive outcomes data base for the years 1975 through 1985. It is my hope, that I

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might be able to acquire from you certain information from this data base and also from any statistics available for the year 1985 for the Holden, Missouri/Johnson County area. The years of interest would primarily be 1983 through the present. However, I would also like some pre-1983 data for comparison purposes. The information I would like is as follows:

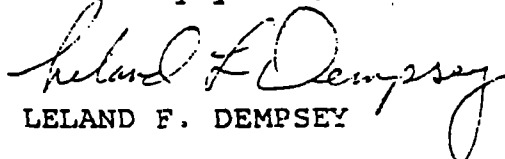
1. Incidents of birth defects.
2. Incidents of stillbirths.
3. Incidents of miscarriages.
4. Incidents of fetal and infant death.

For your information, Rose Chemical Company began handling PBC's in approximately 1983 through 1986. It appears that the largest number of employees came either from Holden, Missouri or from Kingsville, Missouri or from the immediate area surrounding those towns within Johnson County, Missouri. It is also apparent that Rose Chemical Company did draw employees from other adjoining areas including Clinton, Missouri and the Kansas City, Missouri area.

Also, if you have any other information as to any other studies or statistical data banks or any other information concerning the possible adverse health effects on residents of the Holden, Missouri or Johnson County, Missouri area, I would appreciate any information you could provide.

Thank you so much for your help. Looking forward to your response, I remain

Sincerely yours,


LELAND F. DEMPSEY

LFD/11k

cc: Darrell Roberts



JOHN ASHCROFT
GOVERNOR

MISSOURI DEPARTMENT OF HEALTH

January 28, 1986

Mr. Ralph Bicknel
National Institute for Occupational Safety and Health
Region VII
601 East 12th, FOB, 5th Floor West
Kansas City, MO 64106

Dear Mr. Bicknel:

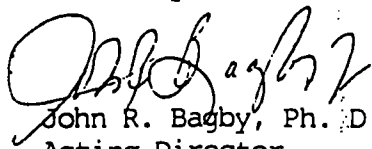
This is a follow up to your telephone conversation of January 23, 1986 with Dr. Crellin. The Missouri Department of Health requests that the National Institute for Occupational Safety and Health (NIOSH) conduct a health hazard evaluation of Rose Chemical in Holden, Missouri. This request is stimulated by the attached laboratory results from the Michigan State Public Health Laboratory.

[REDACTED], an employee at Rose Chemical for nine months, was found to have levels of polychlorinated biphenyls (PCB's) of 314 parts per billion (ppb) in his blood serum. Mr. [REDACTED] also appears to have suffered from chloracne. He is presently [REDACTED]. Also attached are several other items of information about Rose Chemical and the situation at Holden, Missouri that may be of interest.

Both the Environmental Protection Agency and the Occupational Safety and Health Administration have been involved with the problem of PCB's at Rose Chemical and perhaps could be contacted for information on their investigations at the site. We are requesting your aid in this situation because of the evidence provided from Mr. [REDACTED] that high levels of exposure to PCB's may be occurring among at least some of the workers at the plant. We believe that a thorough medical investigation is warranted.

If you have any questions or comments about this request, please contact Dr. Crellin or James Kountzman at 314-751-8209.

Sincerely,


John R. Bagby, Ph.D.
Acting Director

Division of Environmental Health and
Epidemiology Services

JRB/JRC/rlh

attachments

B.C. [REDACTED]
Kim [REDACTED]
K. [REDACTED]

Telephone: (314) 751-2335

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